Gulf of Alaska Keeper

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Updated Progress Report and Prospective Funding

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Project Title: Gulf of Alaska Keeper Tsunami Debris Cleanup Project
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Gulf of Alaska Keeper's (GoAK) cleanup crew began cleaning PWS beaches May 8, targeting Japanese Tsunami Marine Debris (JTMD). 17 landing craft loads of debris were hauled to Whittier where the debris was then transported by Alaska Waste to Central Alaska Recyclers' facility in Anchorage for sorting. Non-recyclable items were then sent on to the Anchorage landfill. During this project, over 68 tons or approximately 700-cubic yards of debris were removed from beaches throughout PWS and along the northeast corner of Montague Island. That is approximately 700-cubic yards of debris. Over 300 miles of targeted beaches were cleaned in this EVOSTC-funded effort.

The GoAK cleanup crew, ranging between 8 and 13 workers, spent 78 days cleaning beaches for EVOSTC in PWS. Two volunteer crews from Japan joined our cleanup crew for one week each, One Japanese crew worked inside PWS in May and another cleaned on the northeast corner of Montague Island in July. Two volunteer Japanese crews intend to again join the cleanup project in the summer of 2014. Nine volunteers also spent 8 days cleaning 14 marine debris monitoring sites within PWS.

With the exception of a few miles around the tip of Zaikof Point at the northeast corner of Montague Island, all of this shoreline had been cleaned by GoAK within a few years of the arrival of JTMD. Most of the volume of the debris collected on previously cleaned beaches consisted of Styrofoam, urethane foam, other construction insulation foam, large aquaculture buoys, drums, fuel jugs, and other types of plastic containers. Many thousands of Japanese plastic bottles were also recovered during this cleanup.

The density of debris collected on shorelines within inner PWS was a fraction of the debris removed from the shoreline around Zaikof Point on Hinchinbrook Entrance. Over half of the debris collected for EVOSTC this season came from just a couple of miles of shoreline near Zaikof Point. The volume of debris in that area exceeds 300-cubic yards or 30 tons per mile. That is considerably higher than the 20 tons we had estimated. At least 50% of the total debris volume is JTMD, but as the JTMD is relatively lightweight, it is only about 15 to 20% of the total weight of debris removed, the balance being derelict fishing gear and many other kinds of plastic debris. GoAK expended as much effort cleaning a couple of miles around Zaikof Point as they did the other 300 miles within PWS this season.

The 14 PWS marine debris monitoring sites conclusively demonstrated that foam JTMD continued to wash onto PWS beaches over the winter of 2012/2013. The total amount of debris

on the monitoring sites decreased by about a third compared to the previous year, but the amount of foam debris remained extraordinarily high, over 25% of the total debris by weight and, of course, much higher by volume. However, we saw very little new foam debris washing onto the beaches during the summer.

As predicted by tsunami debris distribution modeling, since the spring of 2013 we have seen a significant increase of heavier debris such as drums of chemicals washing onshore this season. That trend is more apparent on Gulf of Alaska shorelines such as outer Montague Island and the Kenai Peninsula. Numerous 55-gallon steel drums had Japanese labels on them. We now have several stashes of unknown chemicals awaiting proper disposal. ADEC hazardous-material personnel inspected and removed several drums containing hazardous chemicals that GoAK found on Peak Island. The stashed drums and containers of acid, numerous petroleum products, and unknown chemicals will need to be removed by proper authorities.

A full 55-gallon of an unknown chemical that washed up on northeast Montague Island during the last week of September 2013.

2013-2014 Funding

In addition to the EVOSTC funding for the PWS cleanup this summer, GoAK received in July a $1,000,000 Alaska Legislative grant for JTMD removal. That grant was split with Island Trail Network (ITN) for Kodiak Island area cleanup work and Airborne Technologies, Inc. (ATI) for Southeast Alaska cleanup work. GoAK received $366,000 of the Legislative grant to utilize on the northeast Montague Island cleanup and also in the Gore Point region. GoAK has expended approximately $216,000 of that grant and will utilize the balance of $150,000 to assist with the Barren Island project if necessary. If not needed on the Barrens, we will use it to continue working on northeast Montague Island next summer. However, because the debris density on the Barrens has increased substantially since the tsunami, we anticipate using the Legislative grant funds on that project. However, we and our partners intend to again approach the Legislature for additional funding to help support the Montague Island, Kodiak Island and Southeast Alaska cleanup projects in 2014. It is entirely speculative, but we hope to obtain the same level of funding from the Legislature in 2014 as we did this year.

GoAK would use additional Legislative funding to continue the Montague project. We believe that cleaning the northern three-fifths of Montague Island's Gulf of Alaska shoreline is critically necessary to prevent JTMD from refloating and being dispersed throughout PWS. Because the debris density is so high on the Gulf of Alaska side of Montague Island, and the beaches so remote and rugged, the cost of cleaning that shoreline is now approaching $100,000 per mile including debris transport and disposal costs. Unfortunately, nearly 70 miles of heavily fouled shoreline remain there to be cleaned. Consequently, legislative support for this costly but critical project is essential.

In addition to the remaining Legislative grant balance, GoAK has also been awarded a $25,000 grant from the Chugach Forest Service RCAC to help with fuel and debris disposal related costs for cleanup work in PWS, including outer Montague Island, in the summer of 2014. We also received the same Forest Service grant this summer.

Additionally, GoAK and its partners ITN and ATI have also been qualified to submit proposals in response to ADEC cleanup project RFPs. GoAK would likely use its share of any ADEC funding to assist with the challenging Montague Island project.

Therefore, in addition to the EVOSTC funding requested for 2014, GoAK also has $150,000 in Legislative funding and $25,000 from the Chugach Forest Service available. The level of additional funding from ADEC or the Legislature is unknown at this time. GoAK anticipates also receiving $246,120 in matching funds, including in-kind donations such as volunteer work and cash donations from private donors, to help with the Barren Islands cleanup.

Alaska Legislative Cleanup Project

In addition to the PWS and Montague cleanup work for EVOSTC this summer, GoAK also cleaned beaches with the Alaska Legislative grant at Gore Point, Windy Bay, Chugach Bay, Elizabeth Island, and Summer Cove on the Kenai Peninsula. Under that same grant, GoAK also removed debris from 2 miles of Montague Island shoreline working south from where the

EVOSTC northeast Montague Island project terminated. The cleanup crew spent 35 days working on the Legislative funded project in 2013, 20 of those on outer Montague Island.

The debris collected during the Legislative project on northeast Montague was consolidated but not removed as was done for the EVOSTC project further north. As we worked south, the collected debris became increasingly more difficult to remove from the shore. Instead, the collected debris was cached in large Super Sacks, or in large bundled piles, so that it can later be easily removed by helicopter. There are over 200 Super Sacks, and about 50% more bundled loose debris such as floats, buoys, large drums, and boat parts, cached in safe locations along 2 miles of shoreline. That is approximately 65 tons of debris. This debris, along with additional debris collected next season, will be removed in the fall of 2014 utilizing a helicopter and a large barge. The debris density on the Gulf of Alaska side of Montague Island is so high that it makes little sense to attempt to transport it in countless, and expensive, relatively small loads.

In several locations, where the beaches are very narrow and subject to severe storm surf washing over them, we moved the consolidated debris by helicopter to a safe staging point. On many beaches along the rugged northern two-fifths of eastern Montague Island, it is nearly impossible to land a helicopter. It is also extremely difficult to land workers onshore by skiff or inflatable without perfectly calm seas, so once ashore it is important to maximize cleanup efforts. Hence, we decided that debris consolidation was the most efficient and the safest cleanup methodology. We also reduced risks to workers by avoiding transferring tons of debris from slippery, rocky, surf-driven beaches.

Super Sacks being consolidated September 30 in a secure Montague Island staging area

Nets and line being transferred to the staging area

Super Sack pile on northeast Montague Island

Cleaned for EVOSTC
Cleaned for Alaska Legislature

PWS shorelines cleaned during 2013 JTMD cleanup. Shorelines also cleaned but not shown on this chart include those on northern and eastern Latouche Island, the southwest corner of Elrington Island, and all of the Axel Lind Island, Little Axel Lind Island and Bald Headed Chris Island beaches.

The following photos show some of the marine debris removed and cleanup work done during the summer of 2013.

Derelict dock with encased hazardous chemical drums removed from Naked Island

Cutting up and removing derelict boat hull from Naked Island

Street marker from Japanese tsunami zone found on Naked Island

Load of tsunami debris removed from Green Island

JTMD Styrofoam on Zaikof Point, Montague Island

Tsunami debris collected on Zaikof Point

Transferring JTMD on Zaikof Point

Japanese building components in Rocky Bay, Montague Island

A pile of JTMD and other debris on Zaikof Point

One of numerous steel drums found during the 2013 cleanup